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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,604	02/11/2004	Yao-Ching Stephen Chen	SVL920030096US1/2962P	4627

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EXAMINER
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PANNALA, SATHYANARAYAN R

ART UNIT	PAPER NUMBER
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2164

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/02/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/777,604	<b>Applicant(s)</b> CHEN ET AL.	
	<b>Examiner</b> Sathyanarayan Pannala	<b>Art Unit</b> 2164	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,6,7,9,14,15,17,22,23 and 25-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6,7,9,14,15,17,22,23 and 25-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicant's Amendment filed on 1/18/2007 has been entered with amended claims 1, 6-7, 9, 14-15, 17, 22-23, cancelled claims 2-5, 8, 10-13, 16, 18-21, 24 and newly added claims 25-30. In this Office Action, claims 1, 6-7, 9, 14-15, 17, 22-23 and 25-30 are pending.

#### ***Specification***

2. The revised Abstract filed on 1/18/2007 is objected, because the abstract is a copy of the Summary. Merely removing the word "improved" will not be different from the Summary. Corrected abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use

thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative. The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 9, 14-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant claiming the phrase as “computer readable medium” and it is very broad to interpret and burden to the Examiner.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 25, 27, 29 recite the limitation "controlling locking scheme" in page 7-8, line 2. There is insufficient antecedent basis for this limitation in the claim.

7. Claims 9, 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

### **Claim Rejections - 35 USC § 101**

8. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claim 17 is rejected under 35 U.S.C. § 101, because none of the claims are directed to statutory subject matter. Independent claim 17 deals with simple abstract ideas. A claim that recites a computer that solely calculates a mathematical formula or a computer disk that solely stores a mathematical formula is not directed to the type of subject matter eligible for patent protection. See *Diehr*, 450 US at 186 and *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1, 9, 17, 26, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura et al. (US Patent 6,882,994) hereinafter Yoshimura, in view of Norcott et al. (US Patent 6,999,977) hereinafter Norcott, and in view of Shwartz (US Patent 5,812,840) hereinafter Shwartz.

12. As per independent claims 1, 9, 17, Yoshimura teaches a querying method in which a first data item is obtained from database management system database table in response to a query request (col. 2, lines 14-17). Yoshimura teaches the claimed,

providing a table in the database system, the table including a plurality of rows of data (col. 3, lines 26-28). Yoshimura teaches the claimed, the timestamp column does not appear in the database schema by default and exposes the timestamp value for a given row of data in the table only to a query that calls the timestamp column by name (col. 1, lines 19-25). Yoshimura teaches the claimed, in response to the query, the timestamp column returning the timestamp value to the application for use by the application (col. 1, lines 20-25).

Yoshimura does not explicitly teach hiding a column. However, Shwartz teaches hiding a column of a table (Fig. 1A, D, E, col. 13, lines 37-38). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Shwartz's teachings would have allowed Yoshimura's method to hide the complexities of SQL from the user, similarly hiding column not useful to users (col. 4, line 10).

Yoshimura does not explicitly teach timestamp column in a table. However, Norcott teaches the claimed, providing a timestamp column in the table in the database system, the hidden timestamp column including a timestamp value for each row of data in the table, the time stamp value indicating a last time a corresponding row of data in the table was modified, (Fig. 1, col. 5, lines 14-18). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Norcott's teachings would have allowed Yoshimura's method to allow data extraction, transport and loading with techniques, which do not require schema changes, are robust and do not suffer from

data loss or double counting problems (col. 2, lines 56-59). Further, Norcott teaches the claimed, receiving a query to obtain a timestamp value from the hidden timestamp column, wherein the query calls the timestamp column by name (col. 3, lines 40-42).

13. As per dependent claims 26, 30, Yoshimura teaches the claimed, the timestamp value corresponding to a given row of data in the table is automatically updated each time data in the given row has been modified (col. 1, lines 20-25).

14. Claims 25, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura et al. (US Patent 6,882,994) hereinafter Yoshimura, in view of Norcott et al. (US Patent 6,999,977) hereinafter Norcott, in view of Schwartz (US Patent 5,812,840) hereinafter Schwartz, and in view of Admitted Prior Art (APA).

15. As per dependent claims 25, 29, Yoshimura, Schwartz and Norcott do not explicitly teach a locking scheme and recording data updates. However, APA teaches the claimed, the application uses the returned timestamp value for controlling a locking scheme associated with recording data updates in the database system (page 1, lines 14-17). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to combine the teachings of the cited references because ADA's teachings would have allowed Yoshimura's method to provide timestamp for locking scheme and updating data (page 2, lines 17-18).



16. Claims 6-7, 14-15, 22-23, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sockut et al. (US Patent 5,721,915) hereinafter Sockut, and in view of Yoshimura et al. (US Patent 6,882,994) hereinafter Yoshimura.

17. As per independent claims 6, 14, 22, Sockut teaches a method providing a data page in the database system, the data page comprising a plurality of rows of data (Fig. 2, col. 6, lines 3-6). Sockut teaches the claimed, providing a page timestamp in the data page, the page timestamp having a timestamp value that indicates a last time at least one of the plurality of rows in the table data page was previously modified, (Fig. 2, col. 6, lines 19-24). Sockut teaches the claimed, in the data page was previously modified, the timestamp value having been converted from a log relative byte address associated with the last time the at least one of the plurality of rows in the data page was previously modified (Fig.2, col. 6, lines 25-29). Sockut teaches the claimed, the database system retrieving the timestamp value of the page timestamp from the data page for use by a customer of the database system (Fig. 1, col. 5, lines 43-45).

Sockut does not teach explicitly timestamp. However, Yoshimura teaches "timestamp" (col. 3, lines 40-42). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Yoshimura's teachings would have allowed Sockut's method to provides the access to the timestamp of updated data and to be able to have such updated data processed to be used conveniently according to a company's business rules (col. 2, lines 4-7).

18. As per dependent claims 7, 15, 23, Sockut and Yoshimura combined teaches independent claims 6, 14, 22. Yoshimura teaches the claimed, the data page is recorded on a disk or in a buffer pool (Fig. 9-10, col. 9, lines 62-64). Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because Yoshimura's teachings would have allowed Sockut's method to provides the access to the timestamp of updated data and to be able to have such updated data processed to be used conveniently according to a company's business rules (col. 2, lines 4-7).

19. As per dependent claim 28, Yoshimura teaches the claimed, the timestamp value corresponding to a given row of data in the table is automatically updated each time data in the given row has been modified (col. 1, lines 20-25).

20. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sockut et al. (US Patent 5,721,915) hereinafter Sockut, in view of Yoshimura et al. (US Patent 6,882,994) hereinafter Yoshimura, and in view of Admitted Prior Art (ADA).

21. As per dependent claim 27, Yoshimura and Norcott do not explicitly teach a locking scheme and recording data updates. However, APA teaches the claimed, the application uses the returned timestamp value for controlling a locking scheme associated with recording data updates in the database system (page 1, lines 14-17).

Thus, it would have been obvious to one of ordinary skill in the data processing art at the time of the invention, to have combined the teachings of the cited references because ADA's teachings would have allowed Sockut's method to provide timestamp for locking scheme and updating data (page 2, lines 17-18).

### ***Response to Arguments***

22. Applicant's arguments filed on 1/18/2007 have been fully considered but they are moot in view of new grounds rejection.

### ***Conclusion***

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (571) 272-4115. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Sathyanarayan Pannala  
Primary Examiner

srp  
March 29, 2007